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Theresa
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: Zaharia

SERIAL NO.: 09/778,481

FILED: 02/07/2001

EXAMINER: Salata, Jonathan

GROUP ART UNIT: 2837

FOR: ELEVATOR INSPECTION DEVICE ARRANGEMENT

APPEAL BRIEF

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Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

A Notice of Appeal in this application was submitted on May 27, 2003. Appellant now submits its brief. The fee of $320.00 for filing this brief is being paid by the enclosed Credit Card Authorization.

Real Party in Interest

Otis Elevator Company is the real party in interest.

Related Appeals and Interferences

There are no related appeals or interferences.

Status of the Claims

Claims 1-22 stand finally rejected under 35 U.S.C. §112, first paragraph, and 35 U.S.C. §103.

Status of Amendments

No amendment has been submitted after final. Claims 1-22 are pending as included in the appendix of claims.

Summary of the Invention

Modern elevator systems include a car or cab 22 that moves through a hoistway 34 between different levels in a building, for example. Typical arrangements include at least one belt[1] 26 that bears the load of the car. At least one sheave 28, 30 guides the rope as the car moves. (Page 1, line 7-11).

It is necessary to inspect the condition of the belts 26 because they tend to wear over time. Belt inspection technologies have been improving, however, there is a need for the ability to enhance the reliability of belt condition determinations and improve the economies associated with belt design, maintenance and replacement. (Page 1, line 14-page 2, line 10).

This invention provides an improvement by positioning a sensor device 40 for inspecting the belt condition in an elevator system such that the portion of the belt that is most likely to wear is inspected by the sensor 40. According to the invention, the portion of the belt 26 that is most likely to wear gets inspected and, therefore, improved belt condition determinations can be made. A variety of factors based upon the particular elevator system configuration affect the belt and provide information regarding which portion of the belt is most likely to wear. The invention includes considering such factors to determine what portion of the belt is most likely to wear and then strategically placing the inspection device

[1] The application uses the terms "rope" or "belt" interchangeably and the claimed arrangement is not limited to one particular type of load bearing assembly.

40 relative to the elevator system components to gather information regarding the portion of the belt that is most likely to experience wear or deterioration over time. (Page 5, lines 3-7).

The types of factors considered in the inventive approach include the number and nature of bends that various sections of the belt 26 experience as the elevator car 22 travels in the hoistway, the diameter or size of the sheaves 28, 30 over which the belt 26 bends, distances between the sheaves, the angle of the belt wrap around the sheaves, and the worst case loading on various sections of the belt. This invention includes utilizing one or more of these factors for determining the ideal placement of the inspection device. (Page 5, lines 3-15).

The various factors that are considered in one example preferably are weighted to give appropriate emphasis to the factors that contribute more significantly to belt fatigue. For example, bends over smaller diameter sheaves and shorter distances between sheaves provides a more significant impact than loading. Similarly, reverse bends provide a higher impact than simple bends. (Page 5, line 19 - page 6, line 6).

The specification describes the use of the inventive approach on five different types of example elevator systems for determining the ideal placement of a sensor 40 monitoring the condition of the portion of the belt that is most likely to wear.

Claim 1 is directed to an elevator system that includes an inspection device that provides information regarding a condition of a portion of the rope that is most likely to wear.

Independent claim 5 recites a method that includes determining a portion of the belt that is most likely to wear and gathering information regarding a condition of that portion of the belt using an inspection device that is spaced away from a sheave.

Independent claim 13 recites considering at least one of five different elevator system variables to determine what portion of the belt is most likely to wear and positioning the inspection device away from a sheave such that the inspection device is capable of gathering wear information regarding the portion that is most likely to wear.

Independent claims 20, 21 and 22 are similar to claims 1, 5 and 13, respectively, with additional limitations that recite particular types of belts.

Issues

Whether the final rejections under 35 U.S.C. §112, paragraph 1, are proper when the drawings clearly show spacing between a sensor and a sheave and the specification describes the type of variables considered in the inventive approach and provides five different examples of elevator systems in which the inventive approach is utilized to determine the best position to place a belt inspection device.

Whether the final rejections under 35 U.S.C. §103 are proper where there is no motivation to make the Examiner's proposed combination because it defeats the intended operation of the cited references and, even if it were made, the result is not the same as Applicant's claimed invention.

Grouping of Claims

1. 35 U.S.C. §112

The rejections of claims 1-22 under 35 U.S.C. §112 are contested. All of the claims stand or fall together for purposes of contesting the §112 rejections in this appeal.

2. 35 U.S.C. §103.

The rejections of claims 1-22 under 35 U.S.C. §103 are contested. The following grouping applies to the contested §103 rejections.

Claims 2-4, 12 and 17 depend from claim 1. Claims 1, 2, 4, 12 and 17 stand or fall together for purposes for this appeal. Claim 3 stands alone.

Claims 6-11 and 18 depend from claim 5. Claim 6 stands alone. Claims 7-8 stand or fall together but separately from claim 5. Claim 9 stands alone. Claim 10 stands or falls with claim 5. Claim 11 stands alone. Claim 18 stands or falls together with claim 5.

Claims 14-16 and 19 depend from claim 13. Claim 14 stands alone. Claims 15 and 16 stand or fall together but separately from claim 13. Claim 19 stands or falls together with claim 13.

Claim 20 is independent and stands alone.

Claim 21 is independent and stands alone.

Claim 22 is independent and stands alone.

Arguments

INTRODUCTION

The specification enables the claims according to 35 U.S.C. §112 because the specification describes the types of variables considered when determining what is the ideal placement of an inspection device for monitoring the condition of the rope or belt in an elevator system. Additionally, the specification provides five different examples of different elevator system arrangements where the inventive approach is applied to arrive at a determination for the ideal inspection device location. Every one of the figures

accompanying the description shows a sensor 40 that is spaced away from a sheave. The Examiner fails to recognize that the various examples provided in the specification are enabling because they provide example implementations of the inventive approach.

The claims are not obvious under 35 U.S.C. §103. Even if the combination were proper, it is not the same as the claimed invention. There is no *prima facie* case of obviousness because making the substitution suggested by the Examiner would defeat the entire purpose of both of the cited reference. Accordingly, there is no legally sufficient motivation and the combination cannot be made.

THE CITED REFERENCES

A. United States Patent No. 4,145,920 ("the *Yamagami* reference"

The *Yamagami* reference teaches an arrangement where a wire rope detecting apparatus is supported adjacent a driving sheave 2A so that detecting elements including switches contact the surface of the wire rope as the rope travels along the sheave. The device of the *Yamagami* reference relies upon physical contact between the detector 7 and abnormal portions of the wire rope. If the device of the *Yamagami* reference were moved away from the sheave 2A, it would no longer be able to perform the detecting function according to the teachings of the reference.

B. United States Patent No. 4,427,940 ("the *Hirama* reference")

The *Hirama* reference discloses an electromagnetic-based inspecting device that has a particular magnetic pole arrangement that allows a wire rope to pass such that leakage flux indicates a condition of the wire rope. The Examiner relies upon the *Hirama* reference as showing that the inspecting device 5 is placed away from the sheaves 4A and 4B. The

device of the *Hirama* must be spaced away from a metal sheave or the device would not work as intended.

C. **United States Patent No. 5,025,893 (the "*Saito* reference")**

The Examiner relies upon the *Saito* reference when rejecting claim 3. The Examiner relies upon the teachings of the *Saito* reference that show a sheave 10 placed on the cab 1. *Saito's* contribution to the art is providing guide rollers 11, 12 in position to allegedly minimize vibrations of the rope R.

D. **Applicants' Allegedly Admitted Prior Art**

In the Final Office Action, the Examiner quotes page 1, lines 12-13 of this application as teaching that ropes or belts typically include a plurality of cords that may be coated.

THE REJECTIONS UNDER 35 U.S.C. §112, FIRST PARAGRAPH

1. One of the rejections under 35 U.S.C. §112 relates to the claim language that the sensor is "spaced away from" a sheave. The Examiner contends that such an arrangement "does not appear to be present in the originally filed specification." The Examiner does not comment on the fact that every figure originally filed includes a sensor 40 that is spaced away from the sheaves.

2. The other §112 rejection by the Examiner asserts that the specification does not enable one skilled in the art to practice the invention. The basis of the Examiner's rejection is stated in the Final Office Action but appears to be at least internally contradictory. The Examiner begins by saying the claimed subject matter was "not described in the specification in such a way as to enable one skilled in the art to which it

pertains, or with which it is most nearly connected, to make and/or use the invention." Later in the same Office Action, the Examiner states that "the specification seems to imply that one of ordinary skill in the art would be able to place the sensor at the most logical position...the discussion relating to Figures 2A, 2B discuss the steps that determine a placement of the sensor in the best available position but this would appear to be knowledgeable to [one] of ordinary skill in the art or material that would be available in an installation manual."

At the same time, the Examiner acknowledges that the specification "gives examples of placement schemes for the inspection device."

THE REJECTIONS UNDER 35 U.S.C. §112 ARE IMPROPER

1. The claim language that places the inspection device "spaced away from" a sheave is clearly supported by the application documents as originally filed. The drawings that accompany the written description show, in every example, a sensor device 40 spaced away from a sheave. The figures taken with the written specification clearly teach that the inspection device is "spaced from the sheave."

There is no requirement that there be word-for-word correspondence between the claims and the specification and there is no basis for this rejection.

2. The claims are enabled. The Examiner fails to recognize that the specification clearly states the types of considerations that the inventive approach includes for determining the best possible location of a sensor device for monitoring the portion of a belt that is most likely to wear. Additionally, the specification provides five different sample types of elevator systems where the principles of the inventive approach are utilized

to make a determination of where the best sensor placement would be. The specification states what the best position is for each of the given examples. By giving such examples, the specification teaches one skilled in the art how to practice the claimed invention. Even one example would be enabling. The five disclosed examples clearly provide sufficient teaching to enable the skilled artisan.

The claims are not limited to any one of the particular examples given, however, that does not mean that the claims are not enabled. The specification teaches one skilled in the art the different variables that preferably are considered and provides specific examples of how those variables apply when making a determination for the best location of a belt condition inspection device within an elevator system. This is clearly disclosed and claimed in a manner understood in light of the disclosure.

CLAIMS 1-22 SATISFY 35 U.S.C. §112

Taking claim 1 as an example, every disclosed embodiment has:

> a cab;
> at least one rope having a plurality of metallic load bearing members associated with the cab;
> at least one sheave that guides the rope as the cab moves; and
> an inspection device spaced from the sheave, the inspection device providing information regarding a wear condition of a portion of the rope that is most likely to wear when the portion is away from the sheave.

Claim 1 reads on every one of the given examples. Therefore, claim 1 effectively is enabled five different times.

Claim 3 is enabled by the specification. See, for example, page 7, lines 11-13.

Claim 4 includes the further limitation that "the inspection device is positioned to provide information regarding the entire portion of the rope that is most likely to wear each

time that the cab travels between chosen locations." This feature is also described in the specification at page 2, line 19-page 3, line 2 and page 7, lines 6-10, for example.

Claim 5 recites a method that includes determining what portion of a belt is most likely to wear, positioning an inspection device relative to the belt and spaced away from a sheave and gathering information regarding a wear condition of the portion of the belt that is most likely to wear as the cab moves between chosen positions. This claim is clearly supported by the specification. This claim covers that which is described for example at page 5, line 3 - page 10, line 2. There are at least five different examples in the specification where this is described.

Claims 6-8 are directed to selecting various system characteristics and system variables for making the determination of which portion of the belt is most likely to wear. This is clearly described in the specification, for example, at page 5, line 3-line 18 and page 6, line 12-page 8, line 10.

Claim 9 includes the further limitation that the various factors considered when determining which portion of the belt is most likely to wear are weighted and at least one of the factors is provided a higher significance when considering the impact on the belt and determining which portion of the belt is most likely to wear. This is clearly described in the specification, for example at page 5, line 19-page 6, line 6.

Claim 11 includes the further step of supporting the inspection device for movement relative to other components of the elevator system. This is described in the specification, for example at page 9, line 6-page 10, line 2.

Claim 13 recites a method that includes considering at least one of five different system variables, determining what portion of the belt is most likely to wear based upon the

consideration of those variables and positioning an inspection device such that the device gathers information regarding the portion of the belt that is most likely to wear. The entire detailed description is directed to such an arrangement and provides five different example elevator systems where this claimed method is utilized.

Claims 15 and 16 are directed to assigning a significance to the various system characteristics or system variables that are considered when determining which portion of the belt is most likely to wear. This is clearly described in the specification (see, for example, page 5, line 19-page 6, line 6).

THE REJECTION UNDER 35 U.S.C. §103

The Examiner purports to combine the *Yamagami* reference with the *Hirama* reference. It is not clear exactly how the Examiner proposes to combine *Yamagami* and *Hirama*. In the Advisory Action, the Examiner states that the references are not "literally combined." Some combination, however, must be made in order to attempt to establish a *prima facie* case of obviousness. As discussed below, there is no possible combination of these references because the necessary legal motivation is absent.

THE REJECTIONS UNDER 35 U.S.C. §103 ARE IMPROPER

Any rejection under 35 U.S.C. §103 must begin with a legally sufficient motivation to make a proposed combination to establish a *prima facie* case of obviousness. In this case, there is no motivation to make the combination. If one were to make the Examiner's combination, it would defeat the operation of the arrangement in the cited references.

Therefore, there is no motivation to make the combination and there is no *prima facie* case of obviousness.

The proposed combination cannot be made without defeating the intended operation of the teachings of the applied references. For example, if one were to combine the references such that they would substitute the sensor placement of *Hirama, et al.* for the sensor placement of *Yamagami*, then the ability of the *Yamagami* arrangement to perform its intended function would be entirely lost. The *Yamagami* reference relies upon detecting surface changes in a wire rope as the rope passes over a sheave. Without having the detector immediately adjacent to the sheave, the Yamagami device cannot detect the type of defects discussed in the *Yamagami* reference. That arrangement relies upon pressing the wire roping against a sheave so that defects projecting away from the normal outer surface of the wire rope will be forced toward contact with the detector 7 of the *Yamagami* reference.

Accordingly, if one were to substitute the position of the inspecting apparatus of the *Hirama* reference (i.e., move the *Yamagami* device away from the sheave), the *Yamagami* device would no longer work. A proposed combination that defeats the intended operation of a primary reference device cannot be made. There is no proper legal motivation for making a combination that defeats an intended operation of the cited reference and, therefore, there is no *prima facie* case of obviousness.

Additionally, there is nothing within the teachings of the *Yamagami* reference that would lead a skilled artisan to believe that the disclosed device was in any need of rearrangement or modification. The only motivation for taking the Examiner's proposed approach is hindsight reasoning based upon Applicant's disclosure.

Alternatively, if the Examiner is proposing to place the inspecting apparatus of the *Hirama* reference on a sheave as taught by *Yamagami* then the inspecting device of *Hirama* will no longer work. The placement of a device as taught by *Hirama* on a sheave as shown by *Yamagami* would render the electromagnetic sensing capabilities of the *Hirama* reference void because of interference provided by the metallic sheave.

The Examiner cannot combine general principles extracted from cited references while ignoring the teachings of those references. To not "literally combine" the references is to avoid the required analysis under 35 U.S.C. §103. Without considering the actual teachings of the references and the implications of a combination upon those teachings, the Examiner is proposing to use hindsight reasoning to extract bits and pieces from various references in an attempt to arrive at the claimed arrangement. It is axiomatic that such reasoning is not proper and such a combination does not establish a *prima facie* case of obviousness.

Regardless of how one tries to combine these two references, there is no motivation for making the combination because neither will be able to provide the intended results.

Additionally, the proposed combination cannot be made and still meet the limitations of the claims. The Examiner relies upon the placement of the *Yamagami* device immediately adjacent the sheave when attempting to establish that the *Yamagami* reference teaches monitoring a portion of a belt that is most likely to wear. Therefore, any modification that would move the device to another location would no longer even allegedly meet that limitation in the claims. Further, it is not clear that if one were to use the positioning of the *Hirama* reference, that the portion of the belt most likely to wear would

be inspected. The proposed combination simply cannot be made and there is no prima facie case of obviousness.

Even if the combination could be made, the inventions of at least claims 6, 7, 8, 9, 11, 13 and 22 are nowhere shown or suggested within the cited references. There is no possible strained interpretation of the references that would provide the claimed invention. Even if the combination were proper, the result is not the same as at least these claims and any that depend from them. At a minimum, the §103 rejection of these claims must be reversed because the combination (assuming it could be made, which it cannot) does not result in the claimed invention.

When rejecting claim 3, the Examiner adds the teachings of the *Saito* reference. Because there is no motivation for making the initial combination of *Yamagami* and *Hirama*, the further addition of *Saito* does not remedy this defect in the proposed combination. The explanation provided in paragraph 6 of the Final Office Action seems to indicate that the Examiner proposes to combine the references such that the detector is placed on the cab sheave. If that combination were made, using that placement, it fails to meet the limitations of the claims, which require that the inspection device be spaced away from a sheave.

CLAIMS 1, 2, 4 AND 12 ARE ALLOWABLE

Without a *prima facie* case, claim 1 cannot be considered obvious. The proposed combination is not proper, as discussed above.

There is no basis for the Examiner's continued refusal to allow claim 1.

Claim 4 includes the further limitation that "the inspection device is positioned to provide information regarding the ***entire*** portion of the rope that is most likely to wear each time that the cab travels between chosen locations."

CLAIM 3 IS ALLOWABLE

Claim 3 adds to the limitations of claim 1 that "the inspection device is supported to move with the [elevator] cab." The Examiner's proposed combination of three separate references is improper as discussed above. Additionally, the *Yamagami* reference clearly teaches that the inspecting device is supported as part of a drive machine with a detector 7 located adjacent a drive sheave 2A. The only possible basis behind the reasoning for moving that device to be moveable with an elevator cab is hindsight reasoning. The combination of three separate references plus a statement from Applicant's background is very suggestive of hindsight reasoning. Where more than two references are required to attempt to establish a *prima facie* case of obviousness, that combination should be suspect. In this instance, the clear teachings of the primary reference with regard to the location of that detector provides no motivation for moving the detector to a different position as proposed by the Examiner when rejecting claim 3.

CLAIMS 5, 10 AND 18 ARE ALLOWABLE

Claim 5 recites a method that includes determining what portion of a belt is most likely to wear, positioning an inspection device relative to the belt and spaced away from a sheave and gathering information regarding a wear condition of the portion of the belt that is

most likely to wear as the cab moves between chosen positions. Claim 5 cannot possibly be considered obvious because there is no *prima facie* case as described above.

CLAIM 6 IS ALLOWABLE

In addition to the absence of a prima facie case of obviousness, claim 6 is not satisfied by the improper combination. Neither of the cited references suggests or teaches, "considering at least one of a plurality of system characteristics when determining which portion of the belt is most likely to wear."

CLAIMS 7-8 ARE ALLOWABLE

Claims 7 and 8 cannot be considered obvious because even if the Examiner's proposed combination were proper, it cannot possibly satisfy the limitations of claims 7-8. There is absolutely nothing in the art that describes using the various variables as recited in these claims.

CLAIM 9 IS ALLOWABLE

Claim 9 includes the further limitation that the various factors considered when determining which portion of the belt is most likely to wear are weighted and at least one of the factors is provided a higher significance when considering the impact on the belt and determining which portion of the belt is most likely to wear. Claim 9 cannot be considered obvious because there is no *prima facie* case of obviousness and even if the Examiner's proposed modification could be made, there is no teaching anywhere of performing the

method steps of claim 9. Nothing in the cited references even remotely hints at such "weighting."

CLAIM 11 IS ALLOWABLE

Claim 11 includes the further step of supporting the inspection device for movement relative to other components of the elevator system. Claim 11 cannot be considered obvious. There is no possible benefit to putting an inspection device in a position for movement according to the teachings of the Yamagami reference because it requires that the inspection device be stationary and adjacent the drive sheave 2A. The skilled artisan would not be led to attempt to modify the *Yamagami* teachings to be consistent with claim 11 without the benefit of hindsight reasoning based on Applicant's disclosure.

CLAIMS 13 AND 19 ARE ALLOWABLE

Claim 13 recites a method that includes considering at least one of five different system variables, determining what portion of the belt is most likely to wear based upon the consideration of those variables and positioning an inspection device such that the device gathers information regarding the portion of the belt that is most likely to wear. Claim 13 cannot be considered obvious because the Examiner has not established a *prima facie* case of obviousness. Further, there is no suggestion or teaching anywhere within the cited references for anything even remotely close to steps (A) and (B) of claim 13.

CLAIM 14 IS ALLOWABLE

Claim 14 adds the further steps of considering further system variables. For the same reasons that claim 13 should be allowed, claim 14 should be allowed and further because the additional limitations of claim 14 are nowhere shown in the cited references.

CLAIMS 15 and 16 ARE ALLOWABLE

Claims 15 and 16 are directed to assigning a significance to the various system characteristics or system variables that are considered when determining which portion of the belt is most likely to wear. These claims cannot be considered obvious because there is no *prima facie* case of obviousness. Further, there is no suggestion or teaching anywhere within the cited references for performing any portion of the method steps recited in claims 15 or 16. The additional limitations beyond that in claim 13 are enough to make these claims separately patentable.

CLAIM 20 IS ALLOWABLE

Claim 20 has the same patentable limitations as claim 1 and includes limitations regarding a kind of belt used in the elevator system. This claim is allowable for the same reasons as claim 1 and because the Yamagami reference is useless with the claimed kind of belt. The Yamagami device relies on external fraying of a metal rope to gather information. It is so unlikely that a coated steel belt of the kind recited in claim 1 will not experience such defects that one skilled in the art would never look to Yamagami for a possible solution to the problem of monitoring the portion of such a belt that is most likely to wear.

CLAIM 21 IS ALLOWABLE

Claim 21 has the same patentable limitations as claim 5 and includes limitations regarding a kind of belt. This claim is allowable for the same reasons as claim 5 and because the Yamagami reference is useless with the claimed kind of belt. The Yamagami device relies on external fraying of a metal rope to gather information. It is so unlikely that a coated steel belt of the kind recited in claim 5 will not experience such defects that one skilled in the art would never look to Yamagami for a possible solution to the problem of monitoring the portion of such a belt that is most likely to wear.

CLAIM 22 IS ALLOWABLE

Claim 22 has the same patentable limitations as claim 13 and includes limitations regarding a kind of belt. This claim is allowable for the same reasons as claim 13 and because the Yamagami reference is useless with the claimed kind of belt. The Yamagami device relies on external fraying of a metal rope to gather information. It is so unlikely that a coated steel belt of the kind recited in claim 13 will not experience such defects that one skilled in the art would never look to Yamagami for a possible solution to the problem of monitoring the portion of such a belt that is most likely to wear.

CONCLUSION

The specification provides proper enablement for all claimed subject matter. None of the claims can be considered obvious because the Examiner has failed to establish a *prima facie* case of obviousness. If the proposed combination were made, it would defeat the operation of the *Yamagami* reference. Even if the Examiner's proposed combination were proper, the result is not the same as the claimed invention of many of the pending claims. Applicant respectfully requests that the rejections under 35 U.S.C. §112 and §103 be reversed and that all claims be allowed.

Respectfully submitted,

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Dated: July 28, 2003

CERTIFICATE OF MAILING

I hereby certify that three copies of the enclosed **Appeal Brief** is being deposited with the United States Postal Service as First Class Mail, postage prepaid, in an envelope addressed to Box AF, Assistant Commissioner of Patents, Washington D.C. 20231 on July 28, 2003.

Theresa M. Palmateer

APPENDIX OF CLAIMS

1. An elevator system comprising:

a cab;

at least one rope having a plurality of metallic load bearing members associated with the cab;

at least one sheave that guides the rope as the cab moves; and

an inspection device spaced from the sheave, the inspection device providing information regarding a wear condition of a portion of the rope that is most likely to wear when the portion is away from the sheave.

2. The system of Claim 1, wherein the inspection device is at a fixed point relative to the sheave.

3. The system of Claim 1, wherein the inspection device is supported to move with the cab.

4. The system of Claim 1, wherein the inspection device is positioned to provide information regarding the entire portion of the rope that is most likely to wear each time that the cab travels between chosen locations.

5. A method of inspecting at least one belt in an elevator system where the belt is associated with a cab and is guided by at least one sheave, comprising the steps of:

(A) determining a portion of the belt that is most likely to wear;

(B) positioning an inspection device relative to the belt and spaced from the sheave; and

(C) gathering information regarding a wear condition of the portion of the belt that is most likely to wear when the portion is spaced away from the sheave.

6. The method of Claim 5, wherein step (A) includes considering at least one of a plurality of system characteristics when determining which portion of the belt is most likely to wear.

7. The method of Claim 6, wherein the system characteristics include a number of bends that the belt experiences as the cab travels between locations, dimensions of a sheave along which the belt travels, the manner in which a sheave is supported within the elevator system and an angle of belt wrap around a sheave and a worst case loading on a plurality of portions of the belt.

8. The method of Claim 7, including considering several system variables, including an elevator roping arrangement, a position of a drive mechanism, a position of the sheave and a landing at which worst case car loading conditions typically occur.

9. The method of Claim 8, including weighing the various factors and determining which of those factors has a higher significance than other factors as part of determining which portion of the belt is most likely to wear.

10. The method of Claim 5, including supporting the inspection device in a fixed location relative to the sheave.

11. The method of Claim 5, including supporting the inspection device for movement relative to other components of the elevator system.

12. The system of Claim 1, wherein the cab is supported for movement within a hoistway between an uppermost position and a lowermost position in the hoistway and wherein the inspection device is positioned relative to the rope such that the entire portion of the rope that is most likely to wear is inspected by the inspection device each time that the cab travels between the uppermost and lowermost positions.

13. A method of determining a wear condition of at least one belt in an elevator system where the belt is associated with a cab and is guided by at least one sheave, comprising the steps of:

A) considering at least one of :

a number of bends that the belt experiences as the cab travels between locations,

dimensions of a sheave along which the belt travels,

the manner in which the sheave is supported within the elevator system,

an angle of belt wrap around the sheave, and

a worst case loading on a plurality of portions of the belt;

B) determining a portion of the belt that is most likely to wear based upon the consideration from step (A); and

C) positioning an inspection device relative to the belt and spaced from the sheave such that the inspection device is capable of gathering wear information regarding the portion of the belt from step (B) when the portion is spaced away from the sheave.

14. The method of Claim 13, including considering several system variables, including an elevator roping arrangement, a position of a drive mechanism, a position of the sheave and a landing at which worse case car loading conditions typically occur.

15. The method of Claim 14, including comparing the considered system variables and determining which of those variables has a higher significance than the other variables as part of determining which portion of the belt is most likely to wear.

16. The method of Claim 13, including assigning a significance value to that which is considered in step (A) and using the significance value as part of determining which portion of the belt is most likely to wear.

17. The system of claim 1, wherein the rope comprises a plurality of steel cords encased in a polyurethane jacket and wherein the inspection device provides information regarding at least one of the cords inside of the polyurethane jacket.

18. The method of claim 5, including determining a wear condition of an internal portion of the belt.

19. The method of claim 13, including gathering wear information regarding an internal portion of the belt.

20. An elevator system, comprising:

a cab;

at least one belt having a plurality of metallic load bearing members encased within a polyurethane jacket that establishes an outer surface of the belt, the belt supporting a load associated with the cab;

at least one sheave that guides the belt as the cab moves; and

an inspection device that provides information regarding a wear condition of at least one of the internal metallic load bearing members along a portion of the belt that is most likely to wear.

21. A method of inspecting at least one belt in an elevator system where the belt has a plurality of metallic load bearing members encased in a polyurethane jacket and the belt is guided by at least one sheave during movement of a car within the elevator system, comprising the steps of:

determining a portion of the belt that is most likely to wear;

positioning an inspection device in a location where the inspection device inspects the portion of the belt that is most likely to wear; and

gathering information regarding a wear condition of at least one of the metallic load bearing members inside of the portion of the belt that is most likely to wear.

22. A method of determining a wear condition of at least one belt in an elevator system where the belt has a plurality of metallic load bearing members encased in a polyurethane jacket and the belt is associated with a cab and is guided by at least one sheave, comprising the steps of:

A) considering at least one of :

a number of bends that the belt experiences as the cab travels between locations,

dimensions of a sheave along which the belt travels,

the manner in which the sheave is supported within the elevator system,

an angle of belt wrap around the sheave, and

a worst case loading on a plurality of portions of the belt;

B) determining a portion of the belt that is most likely to wear based upon the consideration from step (A); and

C) positioning an inspection device relative to the belt such that the inspection device is capable of gathering wear information regarding at least one of the metallic load bearing members within the polyurethane jacket in the portion of the belt from step (B).